Abeeway
Improve your position

Solid and long-lasting, built for heavy-duty tracking

The Abeeway Industrial Tracker is a highly versatile multi-mode tracker **with a large battery** and embedded sensors combining GPS, Low-power GPS, Wi-Fi Sniffer, BLE and LoRaWAN™ TDoA geolocation technologies, **supporting accurate outdoor and indoor geolocation.**

This tracker is designed to resist **harsh surroundings** enabling you to perform seamless asset tracking, **proximity detection** and management in any industrial environment – whether it's for **heavy-duty assets, inventory or livestock**, taking advantage of its **extraordinary battery** autonomy.

Available on the App Store

GET IT ON Google Play

Microsoft Azure Certified Device

Applications

• Real-time tracking, status monitoring of heavy and light assets, vehicles, machines and equipment, outdoors or in indoor industrial facilities.

• Activity monitoring based on motion for usage optimization, industrial control and asset management

• Livestock tracking in large farms

• Optimization of supply chain and production, delivery and inventory tracking

• Geofencing applications: receiving zone alerts when leaving/entering specific areas

• Antitheft applications, notification and location trigger when device is moving, at fixed frequency updates or on demand

Product Highlights

Multiple operating modes:
- Motion Tracking: Real-time position when motion is detected
- Permanent tracking: Regular interval real time position
- Start/End motion tracking: Receive position messages during motion start and end events
- Fix on demand: Obtain tracker position when needed (very low power operating mode)
- Activity tracking: Monitor activity rate with embedded sensors

Geolocation technologies:
- GPS: Precise outdoor position
- Low power GPS: Fast Time To First Fix in outdoor and daylight indoor conditions
- Wi-Fi/BLE: Position in indoor and urban area

Other features
- Geofencing zone detection
- Proximity detection
- Temperature monitoring
- LoRaWAN™ Class A radio
- Dust-proof and powerful water jets - (IP 65)
- Firmware upgradable
- Long battery life time
- BLE scan function for inventory of tools and accessories
- Indoor BLE/WiFi fingerprinting with HERE Tracking (requires subscription)
- Indoor BLE based geolocation with Quuppa Intelligent Location (requires Quuppa infrastructure)
- BLE based safe/hazard zone detection

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INDUSTRIAL TRACKER SPECIFICATIONS

Physical configuration

Size	145mm x 76 mm x 42 mm (L x l x h)
Weight	240g
Waterproof capability	IP65
Operating temperature	-15°C to 65°C
Charging temperature	0°C to 45°C
Storage temperature	10°C to 30°C (recommended)
Time storage max	6 months
Humidity	< 95% non-condensing

Standards and Certifications:

LoRa Alliance EU868, US915, AS923, AU915
Radio regulatory certification: EC, FCC, IC, TELEC

Estimated lifetime

Use Case	Battery Life (Approx.)
1 GNSS position / hour [2]	> 18 months
1 LPGPS position / hour [2]	> 5 years
1 WiFi position / hour	10 years
Standby	> 10 years

(2) Assuming 5 satellites at -130dBm input power

Data communication support

LoRaWAN™ Modem	Semtech transceiver SX1262
Protocol	LoRaWAN Class A
LoRaWAN™ Frequency bands [1]	EU868MHz / US915MHz / AS923MHz / AU915 MHz
Configuration supported	OTA or ABP
RF output power [1]	14 dBm / 18.5 dBm (max)
Min sensitivity of LoRaWAN™ receiver	-132 dBm in SF10
Wi-Fi Frequency band	2412 – 2472MHz
Wi-Fi sniffer max emission	3 dBm
BLE sensitivity	-91 dBm
BLE RF output power	4 dBm max
BLE frequency band	2402 – 2480MHz
GNSS band	1559 – 1610MHz

(1) Channel frequencies and Transmit output power level are country specific and controlled by the operator

Position accuracy

GPS[2]	Position Accuracy (50%-90%)	10 to 18 meters	
	Time To First Fix	Cold start	30-60 seconds
		Hot start	<5 seconds
	Acquisition sensitivity	-140 dBm	
Low power GPS[2]	Position Accuracy (50%-90%)	15 - 30 meters	
	Time To First Fix	<10 seconds	
	Acquisition sensitivity	-160 dBm	
Wi-Fi[3]	Indoor Position Accuracy	20 - 50 meters	
	Time to get a position	3 seconds	
	Sensitivity	-86 dBm	
BLE for positioning[3]	Indoor Position Accuracy	5 - 15 m	
	Time to get a position	1 second	
BLE for proximity	Proximity Detection accuracy	< 1m	

(2) Assuming 5 satellites at -130 dBm input power   (3) Accuracy depends on the WiFi AP density and physical layout of the premises

Power management

Primary Battery	19Ah (EU), 14 Ah (US) / 3.6V
Battery type	Lithium-thionyl Chloride Type D

Product references

Product	SKU
ABE INDUSTRIAL TRACKER EU868	DEABE2XX-XXEU
ABE INDUSTRIAL TRACKER US915	DEABE2XX-XXUS
ABE INDUSTRIAL TRACKER AS923	DEABE2XX-XXAS
ABE INDUSTRIAL TRACKER AU915	DEABE2XX-XXAU

Abeeway is the market leader in low-power geolocation and a provider of disruptive IoT tracking solutions worldwide. Abeeway offers the most energy-efficient, reliable and flexible geolocation solutions using unique tracking devices and a smart multi-technology location system optimized for long-range and low-power-consumption LoRaWAN™ connectivity. The system makes precise geolocation power-efficient for various environments by combining high-precision GPS, our patented cloud computing technology Low Power GPS and ultra-low-consumption Wi-Fi sniffing technique. Offering the fastest time-to-market, Abeeway delivers a complete end-to-end solution for mass-market IoT sectors for asset tracking and management, process and decision optimization and personal safety.
Abeeway is a member of LoRa Alliance™ and is part of the Actility Group. Actility Group is a leading provider of LPWA IoT connectivity solutions, tools, business services and applications.